

## CLAIMS

What is claimed is:

1                   1.     A method for controlling a powertrain in a motor vehicle  
2     having a first torque source and a second torque source each providing a torque  
3     output to a transmission, the method comprising:  
4                   determining a vehicle speed and a current gear selection of the  
5     motor vehicle;  
6                   calculating a threshold value from the vehicle speed and the current  
7     gear selection;  
8                   determining a accelerator position of the motor vehicle;  
9                   calculating a accelerator position rate of change from the  
10     accelerator position;  
11                  comparing the accelerator position rate of change to the threshold  
12     value;  
13                  increasing the torque output from the first torque source if the  
14     accelerator position rate of change is less than the threshold value; and  
15                  downshifting the transmission if the accelerator position rate of  
16     change is greater than the threshold value.

1                   2.     The method of claim 1, wherein determining the vehicle  
2     speed and current gear selection includes reading a vehicle speed sensor and a  
3     gear selection sensor in the motor vehicle.

1                   3.     The method of claim 1, wherein determining a accelerator  
2 position includes reading a accelerator sensor in the motor vehicle.

1                   4.     The method of claim 1, further comprising synchronizing the  
2 second torque source to the first torque source if the first torque source is at full  
3 torque and the accelerator position rate of change is less than the threshold  
4 value.

1                   5.     The method of claim 1, wherein calculating the threshold  
2 value further includes analyzing engine total hours of operation, current operating  
3 efficiency, usage of the accelerator, air conditioning utilization, and auxiliary  
4 power requirements.